Book Review

Frederick R. Troeh and Louis M. Thompson. 2005. **Soils and Soil Fertility. 6th edition**. (ISBN 0-8138-0995-X, hbk.). Blackwell Publishing. 2121 State Ave., Ames, IA 50014-8300, U.S.A. and 9600 Garsington Road, Oxford, OX4 2DQ, UK. (**Orders:** 515-292-0140, 515-292-3348 fax 1-800-862-6657, www.blackwellprofessional.com, orders@ames.blackwellpublishing.com). $89.95, 498 pp., 231 illustrations, 7" × 10".

Soil and Soil Fertility is a well-illustrated book that presents soil topics in an easily understood language. It would be suitable as a textbook for classes on general soils or soil fertility. Additionally, this title could also be a beneficial reference text for classes in agronomy, hydrology and agricultural engineering.

Within the preface, the authors mention that this book has been "*designed for use as a textbook for the introductory course in soils for students in agriculture and related sciences.*" Chapter topics include **1)** Soil; **2)** Soil Formation; **3)** Physical Properties of Soils; **4)** Soil Mechanics; **5)** Soil Water; **6)** Soil Organic Matter; **7)** Soil Mineralogy; **8)** Soil Chemistry; **9)** Amending the Soil; **10)** Fertilizers; **11)** Nitrogen; **12)** Phosphorus; **13)** Potassium; **14)** Calcium, Magnesium, and Sulfur; **15)** The Micronutrients; **16)** Variations in Plant Composition; **17)** Soil Classification; **18)** Land Use and Soil Management; **19)** Water Management; **20)** Soil Erosion and Its Control; and **21)** Soil Pollution. The order of chapters flow well into one another, building on previous chapters' materials, starting with soils basics and mineralogy, delving in soil chemistry and fertility and ending with environmental topics and land stewardship.

The text is very readable and is accompanied by many supportive illustrations, graphs, and charts. These diagrams and illustrations utilize black and white hatch marks and other easily distinguishable designs. The authors have made the calculations straightforward and typically offer an example problem with explanation. Basic soil tests/analyses are included throughout the text including items such as particle size analysis using Stoke's law, a hydrometer, and a RUSLE soil loss equation example. At the end of each chapter is an important notes section, and a list of questions that if answered, would demonstrate an understanding of the text.

In addition to all of the discussion of general soils information, this book also delves into two other important soils subjects: soil fertility and soil classification. The section on soil fertility is a very straightforward and usable introduction to soil fertility followed by chapters covering the macro and micronutrients. These chapters include chemical use and deficiency symptoms in plants, the nutrient cycle and availability, fertilizer types for that nutrient, application info and more. The chapter on soil classification includes a number of different systems with background and explanation on each system, additionally covering land use and land practices to reduce soil loss. In the end, there is a measurement and conversion summary as well as a glossary.

Soil and Soil Fertility by Troeh and Thompson would be an excellent textbook for soils and related classes. This is a very intelligent book full of supportive black and white illustrations within the text. Although designed as a textbook, gardeners and enthusiasts may enjoy reading this text for information and a better understanding of soil properties and soil fertility.—*Lee Luckeydoo, Her-*

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